

Unit 4  
Day 2  
Multiplying Polynomials

1)  $(2a-b)(2a+b)$

$$4a^2 - b^2$$

2)  $(7x+2y)^2$

$$49x^2 + 28xy + 4y^2$$

$$49x^2 + 2 \cdot 14xy + 4y^2$$

3)

$$[(2y+1)+3][(2y+1)-3]$$

$$\begin{aligned} (2y+1)^2 - 9 \\ 4y^2 + 4y + 1 - 9 \\ 4y^2 + 4y - 8 \end{aligned}$$

4)

$$[(2y+1)-3]^2$$

$$\begin{aligned} (2y+1)^2 - 2 \cdot 3(2y+1) + 9 \\ 4y^2 + 4y + 1 - 12y - 6 + 9 \\ 4y^2 - 8y + 4 \end{aligned}$$

5)

$$(3x-y)(2x+2y)$$

$$\begin{aligned} 6x^2 + 6xy - 2xy - 2y^2 \\ 6x^2 + 4xy - 2y^2 \end{aligned}$$

6)

$$2(x^2 - 2x + 3) - 4(2x^2 - x + 8)$$

$$\begin{aligned} 2x^2 - 4x + 6 - 8x^2 + 4x - 32 \\ -6x^2 - 26 \end{aligned}$$

7)

$$x^{1/5} (x^{4/5} + x^{9/5})$$

$$x + x^2$$

8)

$$(y - y^{1/2})(y + y^{1/2})$$

$$y^2 - y$$

9)

$$(x^{1/2} - x^{-1/2})^2$$

$$x - 2x^0 + x^{-1} = x - 2 + \frac{1}{x}$$



$$(x^{1/2})^2 = x^{2 \cdot \frac{1}{2}} = x^1$$

HOMEWORK: Unit 4 Day 2